

Express Mail Label No.:

Date of Deposit:

Attorney Docket No. 21402-604 (Cura 904)



## COMBINED DECLARATION AND POWER OF ATTORNEY FOR PATENT APPLICATION

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am an original, first and joint inventor of the subject matter which is claimed and for which a utility patent is sought on the invention entitled:

### METHODS FOR DIAGNOSING AND TREATMENT OF CONDITIONS THAT ALTER PHOSPHATE TRANSPORT IN MAMMALS

The specification of which was filed on August 20, 2003 with the United States Patent and Trademark Office, assigned United States Serial No.10/644,469 and bearing Attorney Docket No. 21402-604 (Cura 904)

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information, which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, §1.56.

I hereby claim foreign priority benefits under Title 35, United States Code, §119(a)-(d) or §365(b) of any foreign application(s) for patent or inventor's certificate, or §365(a) of any PCT International application designating at least one country other than the United States listed below and have also identified below any foreign application for patent or inventor's certificate or PCT International application having a filing date before that of the application on which priority is claimed.

| Appln.<br>Number | Country<br>(if PCT, so indicate) | Filing Date<br>(dd/mm/yy ) | Priority Claimed         |                          |
|------------------|----------------------------------|----------------------------|--------------------------|--------------------------|
|                  |                                  |                            | Yes                      | No                       |
|                  |                                  |                            | <input type="checkbox"/> | <input type="checkbox"/> |
|                  |                                  |                            | <input type="checkbox"/> | <input type="checkbox"/> |

**Confirmation No:**

**Filed:**

I hereby claim the benefit under Title 35, United States Code, § 119(e) or §120 of any United States application(s), or §365(c) of any PCT International application(s) designating the United States of America listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT International application in the manner provided by the first paragraph of Title 35, United States Code, §112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, §1.56 which became available between the filing date of the prior application and the national or PCT International filing date of this application:

| <b>Application No.<br/>(U.S.S.N.)</b> | <b>Filing Date<br/>(dd/mm/yy)</b> | <b>Status<br/>(Patented, Pending,<br/>Abandoned)</b> | <b>Client Docket No.</b> |
|---------------------------------------|-----------------------------------|--|--------------------------|
| 60/404659                             | 20-Aug-02                         | Pending  | Cura 904 PRO             |
| 60/463219                             | 16-Apr-03                         | Pending  | Yale Application         |

PCT International Applications designating the United States:

| <b>PCT International Application No.</b> | <b>PCT Filing Date</b> | <b>Status</b> |
|--|------------------------|---------------|
|  |                        |               |

I hereby appoint the attorneys and/or agents associated with Mintz Levin Cohn Ferris Glovsky & Popeo, Customer Number: 30623

And Wendy Davis, Reg. No. 38,427, Mei Li Benni, Reg. No. 45,470, and George Yahwak, Reg. No. 26,824, all of CuraGen Corp., 555 Long Wharf Drive, New Haven, CT. 06511

to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith.

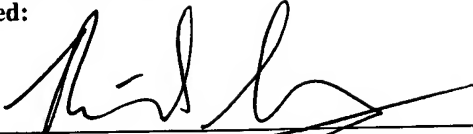
Please address all telephone calls to Ivor R. Elrifi at telephone number 617/348-1747. Please

address all correspondence to Customer Number: 30623

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or patent issued thereon.

Confirmation No:

Filed:



**Inventor's Signature: Richard A. Shimkets**

Full Name of Inventor: Richard A. Shimkets

Citizenship: USA

Residence: 5 Indian Meadows Drive, Guilford, CT. 06437

Post Office Address: Same



Date

**Inventor's Signature: Thomas O. Carpenter**

Full Name of Inventor: Thomas O. Carpenter

Citizenship: USA

Residence: 695 Royal Lane, Orange, CT. 06477

Post Office Address: Same

Date

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**Inventor's Signature: Richard A. Shimkets**

Date

Full Name of Inventor: Richard A. Shimkets

Citizenship: USA

Residence: 5 Indian Meadows Drive, Guilford, CT. 06437

Post Office Address: Same

*Thomas O. Carpenter*

*9/21/04*

**Inventor's Signature: Thomas O. Carpenter**

Date

Full Name of Inventor: Thomas O. Carpenter

Citizenship: USA

Residence: 695 Royal Lane, Orange, CT. 06477

Post Office Address: Same

Subscribed and Sworn to before me  
this 21 day of Sept 20 04

*Ann Marie Capone*

ANN MARIE CAPONE  
Notary Public

My Commission Expires June 30, 2008

## ASSIGNMENT

I, Thomas O. Carpenter, the undersigned, for good and valuable consideration, the receipt of which is hereby acknowledged, hereby assign, sell and transfer to **Yale University**, a corporation organized and existing under and by virtue of a charter granted by the General Assembly of the Colony and State of Connecticut and located in New Haven, Connecticut and its successors, assigns and legal representatives, all hereinafter referred to as the ASSIGNEE: (1) my entire right, title and interest for the United States and in all countries, in and to any and all inventions, discoveries and applications which are disclosed in the application for United States Letters Patent entitled:

### **METHODS FOR DIAGNOSING AND TREATMENT OF CONDITIONS THAT ALTER PHOSPHATE TRANSPORT IN MAMMALS**

filed with the U.S. Patent and Trademark Office on August 20, 2003 and assigned United States Serial No. **10/644,469**, including any renewals, revivals, reissues, reexaminations, extensions, continuations and divisions thereof and any substitute applications therefor; (2) the full and complete right to file patent applications in the name of the ASSIGNEE, its designee, or in my name as the ASSIGNEE, or its designee's election, on the aforesaid inventions, discoveries and applications in all countries of the world; (3) the entire right, title and interest in and to any Letters Patent which may issue thereon in the United States or in any country, and any renewals, revivals, reissues, reexaminations and extensions thereof, and any patents of confirmation, registration and importation of the same; and (4) the entire right, title and interest in all Convention and Treaty Rights of all kinds thereon, including without limitation all rights of priority in any country of the world, in and to the above inventions, discoveries and applications.

I hereby authorize and request the competent authorities to grant and to issue any and all such Letters Patent in the United States and throughout the world to the ASSIGNEE of the entire right, title and interest therein, as fully and entirely as the same would have been held and enjoyed by me had this assignment, sale and transfer not been made.

I agree, at any time, upon the request of the ASSIGNEE, to execute and to deliver to the ASSIGNEE any additional applications for patents for said inventions and discoveries, or any part or parts thereof, and any applications for patents of confirmation, registration and importation based on any Letters Patent issuing on said inventions, discoveries, or applications and divisions, continuations, renewals, revivals, reissues, reexaminations and extensions thereof.

I further agree at any time to execute and to deliver upon request of the ASSIGNEE such additional documents, if any, as are necessary or desirable to secure patent protection on said inventions, discoveries and applications throughout all countries of the world, and otherwise to do the necessary to give full effect to and to perfect the rights of the ASSIGNEE under this Assignment, including the execution, delivery and procurement of any and all further documents evidencing this assignment, transfer and sale as may be necessary or desirable.

Confirmation No.:

Filed:

I hereby covenant that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment.

I further covenant that ASSIGNEE will, upon its request, be provided promptly with all pertinent facts and documents relating to said invention and said Letters Patent and legal equivalents as may be known and accessible to ASSIGNOR and will testify as to the same in any interference, litigation or proceeding related thereto and will promptly execute and deliver to ASSIGNEE or its legal representatives any and all papers, instruments or affidavits required to apply for, obtain, maintain, issue and enforce said application, said invention and said Letters Patent and said equivalents thereof which may be necessary or desirable to carry out the purposes thereof.

Date: 9/21/04

Thomas O. Carpenter  
Signature of: Thomas O. Carpenter

State of Connecticut

County of New Haven

Subscribed and sworn to before me this 21 day of September 2004.

Ann Marie Capone  
Notary Public

My commission expires 06/30/2008



## ASSIGNMENT

I, **Richard Shimkets**, the undersigned, for good and valuable consideration, the receipt of which is hereby acknowledged, hereby assign, sell and transfer to **CuraGen Corporation**, a Delaware corporation, with offices at **555 Long Wharf Drive, 9<sup>th</sup> Floor, New Haven, CT 06511** and its successors, assigns and legal representatives, all hereinafter referred to as the ASSIGNEE:

(1) my entire right, title and interest for the United States and in all countries, in and to any and all inventions, discoveries and applications which are disclosed in the application for United States Letters Patent entitled:

### **METHODS FOR DIAGNOSING AND TREATMENT OF CONDITIONS THAT ALTER PHOSPHATE TRANSPORT IN MAMMALS**

filed with the U.S. Patent and Trademark Office on August 20, 2003 and assigned **Serial No. 10/644,469**, including any renewals, revivals, reissues, reexaminations, extensions, continuations and divisions thereof and any substitute applications therefore; (2) the full and complete right to file patent applications in the name of the ASSIGNEE, its designee, or in my/our names at the ASSIGNEE, or its designee's election, on the aforesaid inventions, discoveries and applications in all countries of the world; (3) the entire right, title and interest in and to any Letters Patent which may issue thereon in the United States or in any country, and any renewals, revivals, reissues, reexaminations and extensions thereof, and any patents of confirmation, registration and importation of the same; and (4) the entire right, title and interest in all Convention and Treaty Rights of all kinds thereon, including without limitation all rights of priority in any country of the world, in and to the above inventions, discoveries and applications.

I hereby authorize and request the competent authorities to grant and to issue any and all such Letters Patent in the United States and throughout the world to the ASSIGNEE of the entire right, title and interest therein, as fully and entirely as the same would have been held and enjoyed by me had this assignment, sale and transfer not been made.

I agree, at any time, upon the request of the ASSIGNEE, to execute and to deliver to the ASSIGNEE any additional applications for patents for said inventions and discoveries, or any part or parts thereof, and any applications for patents of confirmation, registration and importation based on any Letters Patent issuing on said inventions, discoveries, or applications and divisions, continuations, renewals, revivals, reissues, reexaminations and extensions thereof.

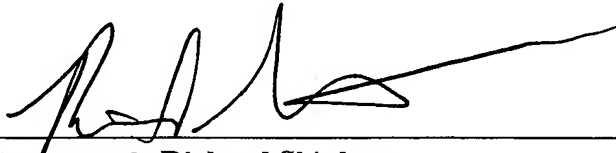
I further agree at any time to execute and to deliver upon request of the ASSIGNEE such additional documents, if any, as are necessary or desirable to secure patent protection on said inventions, discoveries and applications throughout all countries of the world, and otherwise to do the necessary to give full effect to and to perfect the rights of the ASSIGNEE under this Assignment, including the execution, delivery and procurement of any and all further documents evidencing this assignment, transfer and sale as may be necessary or desirable.

I hereby covenant that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment.

Filed:

I further covenant that ASSIGNEE will, upon its request, be provided promptly with all pertinent facts and documents relating to said invention and said Letters Patent and legal equivalents as may be known and accessible to ASSIGNOR and will testify as to the same in any interference, litigation or proceeding related thereto and will promptly execute and deliver to ASSIGNEE or its legal representatives any and all papers, instruments or affidavits required to apply for, obtain, maintain, issue and enforce said application, said invention and said Letters Patent and said equivalents thereof which may be necessary or desirable to carry out the purposes thereof.

Date: 9-24-04

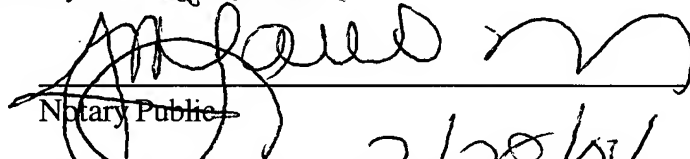


Signature of: Richard Shinkets

State of Connecticut

County of New Haven

Subscribed and sworn to before me this 24 day of September

  
Notary Public  
My commission expires 2/28/04